

Subject and Author Index for Volume 24, 1992

- Acid deposition: Alaska, 64–68
Acidic lakes, 64–68
Alaska: Cellular slime molds, 244–248; Disturbance, 69–77; Flora, 82–87; Heat flow in snow, 145–152; Hydrochemistry, 291–303; Lake chemistry, 64–68; Late Quaternary beetle fauna, 133–144; Palynology, 56–93; Succession, 238–243; Tundra fellfield communities, 233–237
Alkalinity: Alaskan lakes, 64–68
Alopex, 324–328
Alpine: Archaeology, 1–16; Ecology, 50–55; Ecosystem, 211–215; Forest-tundra ecotone, 216–228; Glacier conditions, 229–232; Himalayan grassland, 78–81; Primary production, 211–215; Psychrotrophic bacteria, 88–92; Snowpack, 211–215
Antarctica: Periglacial processes, 271–280
Archaeology: Mountain, 1–16
Arctic fox dens, 324–328
Arctic National Wildlife Refuge, 69–77
Arctic: Ecological problems, 99–107; Environmental degradation, 99–107; Flora, 82–87; Limestone weathering, 314–323; Narwhal ivory commerce, 179–187; Palynology, 56–63; Plant reproductive ecology, 337–343
Aspen, 17–26
- Baker, W. L. (Structure, disturbance, and change in the bristlecone pine forests of Colorado, U.S.A.), 17–26
Bed load transport, 195–203
Beetle fauna: Late Quaternary, 133–144
Benedict, J. B. (Footprints in the snow: high-altitude cultural ecology of the Colorado Front Range, U.S.A.), 1–16
Bennike, O. (Paleoecology and paleoclimatology of a late Holocene peat deposit from Brændevinsskær, Central West Greenland), 249–252
Beringia: Beetle fauna, 133–144
Biogeochemistry, 204–210
Biogeography, 82–87
Biomass yield, 78–81
Black, S. *See* Doolittle, J. A., et al.
Bomar, C. R. *See* Lockwood, J. A., et al.
Book Reviews
A Sierra Club Naturalist's Guide to the Southern Rockies: The Rocky Mountain Regions of Southern Wyoming, Colorado and Northern New Mexico. A. D. Benedict. D. M. Armstrong, 188
Aspects of Geomorphology and Thermoluminescence Dating of Cold-Climate Eolian Sands. J. W. A. Dijkmans. S. L. Forman, 262–263
Back from the Brink: The Road to Muskox Conservation in the Northwest Territories. W. Barr. P. N. Cronenwett, 260–261
Barrenland Beauties: Showy Plants of the Arctic Coast. P. M. Burt. S. E. White, 261–262
Climate Change: The IPCC Scientific Assessment. J. T. Houghton, G. J. Jenkins, and J. J. Ephraums. J. W. C. White, 263
Climate—Our Future? U. Schotterer and P. Andermatt. V. Markgraf, 363
Die Gletscher der Bolivianischen Anden. E. Jordan. U. Radok, 96
Geological History of the Polar Oceans: Arctic Versus Antarctic. U. Bleil and J. Thiede. J. T. Andrews, 94–95
Glacial Marine Sedimentation: Paleoclimatic Significance. J. B. Anderson and G. M. Ashley. J. T. Andrews, 263–264
Northern Hydrology: Selected Perspectives. Proceedings of the Northern Hydrology Symposium. T. D. Prowse and C. S. L. Ommaney. J. S. Price, 365
Pergélisol-Canada: Actes de la Cinquième Conférence Canadienne sur le Pergélisol/Permafrost-Canada: Proceedings of the Fifth Canadian Permafrost Conference. S. E. White, 93–94
Subantarctic Macquarie Island: Environment and Biology. P. M. Selkirk, R. D. Seppelt, and D. R. Selkirk. J. R. Spence, 95
The Growth and Decay of Ice. G. S. H. Lock. C. A. Knight, 188–189
The Trans-Alaska Pipeline Controversy: Technology, Conservation, and the Frontier. P. A. Coates. D. A. Walker, 363
Unravelling the Franklin Mystery: The Inuit Testimony. D. C. Woodman. C. Holland, 260
Bowman, W. D. (Inputs and storage of nitrogen in winter snowpack in an alpine ecosystem), 211–215
Bristlecone pine, 17–26, 253–256
Broll, G. *See* Holtmeier, F.-K. and Broll, G.
Brunstein, F. C. and Yamaguchi, D. K. (The oldest known Rocky Mountain bristlecone pines (*Pinus aristata* Engelm.)), 253–256
Buttle, J. M. and Fraser, K. E. (Hydrochemical fluxes in a high arctic wetland basin during spring snowmelt), 153–164
Bykova, O. Yu. *See* Vilchek, G. E. and Bykova, O. Yu.
Canada: Arctic fox dens, 324–328; Arctic weathering, 314–323; Ice-dammed lake, 304–313; Narwhal ivory commerce, 179–187; Palsas in Newfoundland, 173–178; Palynology, 329–336; Pedogenesis in British Columbia, 108–123; Rocky Mountains, 50–55, 108–123; Treeline in Quebec, 40–49
Cation exchange, 153–164
Cellular slime molds, 244–248
Chemical weathering, 314–323
Chronosequence, 108–123
Climate change: Greenland, 124–132
Clipping, 78–81
Colinvaux, P. A. *See* Eisner, W. R. and Colinvaux, P. A.
Colorado: Alpine pedocology, 216–228; Bristlecone pine, 17–26, 253–256; Front Range archaeology, 1–16; Nitrogen deposition in snowpack, 211–215
Commerce: Narwhal ivory, 179–187
Cushion plants, 50–55
- Dating techniques, 50–55
DeBrey, L. D. *See* Lockwood, J. A., et al.
DeBrey, W. G. *See* Lockwood, J. A., et al.
Dendrochronology, 253–256
Densmore, R. *See also* Landolt, J. C., et al.
Densmore, R. V. (Succession on an Alaskan tundra disturbance with and without assisted revegetation with grass), 238–243
Dictyostelium, 244–248
Dissolved organic carbon, 204–210
Disturbance, 69–77, 233–237, 238–243
Doering, W. R. and Reider, R. G. (Soils of the Cinnabar Park, Medicine Bow Mountains, Wyoming, U.S.A.: indicators of park origin and persistence), 27–39
Doolittle, J. A., Hardisky, M. A., and Black, S. (A ground-penetrating radar study of Goodream Palsas, Newfoundland, Canada), 173–178
Dredge, L. A. (Breakup of limestone bedrock by frost shattering and chemical weathering, eastern Canadian arctic), 314–323
DuBois, K. E. *See* Felix, N. A., et al.
- Ecological problems, 99–107
Ecology: Alaska vegetation, 244–248; Alpine meadow, 344–351; Plant ecology, 344–351; Bristlecone pine, 17–26, 253–256; Cellular slime molds, 244–248; Cultural, 1–16; Disturbance, 67–77, 233–237, 238–243; Himalayan grassland, 78–81; *Saxifraga*, 337–343; *Silene acaulis*, 50–55; Tree islands, 216–228; Tundra plant communities, 233–237
Eisner, W. R. and Colinvaux, P. A. (Late Quaternary pollen

- records from Oil Lake and Feniak Lake, Alaska, U.S.A.), 56–63
- Elias, S. A. (Late Quaternary beetle faunas of southwestern Alaska: evidence of a refugium for mesic and hygrophilous species), 133–144
- Energy balance, 352–362
- Environmental degradation: Arctic, 99–107
- Eolian erosion/deposition, 27–39
- Equilibrium-line altitude: New Zealand, 281–290
- Extractive industry, 99–107
- Felix, N. A., Raynolds, M. K., Jorgenson, J. C., and DuBois, K. E. (Resistance and resilience of tundra plant communities to disturbance by winter seismic vehicles), 69–77
- Fellfield, 233–237
- Fen: Dissolved organic carbon, 204–210; Ground-penetrating radar, 173–178
- Fertility: Tundra, 233–237
- Field equipment, 257–259
- Fire ecology, 17–26
- Fitzharris, B. B. *See* Woo, M. and Fitzharris, B. B.
- Flora: Arctic, 82–87
- Forest, 17–26
- Forest-park boundary, 27–39
- Fox, J. F. (Responses of diversity and growth-form dominance to fertility in Alaskan tundra fellfield communities), 233–237
- Fraser, K. E. *See* Buttelle, J. M. and Fraser, K. E.
- Frost creep, 271–280
- Frost heave, 271–280
- Frost shattering, 314–323
- Gajewski, K. and Garralla, S. (Holocene vegetation histories from three sites in the tundra of northwestern Quebec, Canada), 329–336
- Game-drive hunting, 1–16
- Garralla, S. *See* Gajewski, K. and Garralla, S.
- Glacier: Grasshopper remains, 229–232; Ice-dammed lake, 304–313; Mass balance variations, 281–290; Recession, 229–232; Terminal changes, 124–132, 281–290
- Glasser, N. F. *See* Warren, C. R. and Glasser, N. F.
- Grass: Revegetation, 238–243
- Grasshopper remains in glacier, 229–232
- Grassland: Alpine, 78–81
- Greenland: Energy balance, 352–362; glaciers, 124–132; Meteorology, 352–362; Paleoecology, 249–252
- Ground-penetrating radar, 173–178
- Growth curve: *Silene acaulis*, 50–55
- Growth form, 233–237
- Gunther, A. J. (A chemical survey of remote lakes of the Alagnak and Naknek river systems, southwest Alaska, U.S.A.), 64–68
- Hardisky, M. A. *See* Doolittle, J. A., et al.
- Heat flow in snow, 145–152
- Herbage yield, 78–81
- Himalaya: Alpine grassland, 78–81; Plant ecology, 344–351
- Holocene: Environment, 108–123; Paleoecology, 249–252; Peat, 249–252; Vegetation history, 329–336
- Holtmeier, F.-K. and Broll, G. (The influence of tree islands and microtopography on pedoecological conditions in the forest-alpine tundra ecotone on Niwot Ridge, Colorado Front Range, U.S.A.), 216–228
- Hydrochemistry: Alaskan lake, 64–68; High Arctic wetland, 153–164; Streamwater, 291–303
- Hydrology: Bed load transport, 195–203; Proglacial stream, 195–203
- Ice-dammed lake, 304–313
- Ice-made ramparts, 165–172
- Insect: Fossil beetles, 133–144
- Ion budgets, 153–164
- Ivory trade, 179–187
- Japan: Ice-made ramparts, 165–172
- Johnson, P. G. and Kasper, J. N. (The development of an ice-dammed lake: the contemporary and older sedimentary record), 304–313
- Jorgenson, J. C. *See* Felix, N. A., et al.
- Karlstrom, E. T. and Osborn, G. (Genesis of buried paleosols and soils in Holocene and late Pleistocene tills, Bugaboo Glacier area, British Columbia, Canada), 108–123
- Kasper, J. N. *See* Johnson, P. G. and Kasper, J. N.
- Kelso, S. (The genus *Primula* as a model for evolution in the Alaskan flora), 82–87
- Koprivnjak, J.-F. and Moore, T. R. (Sources, sinks and fluxes of dissolved organic carbon in subarctic fen catchments) 204–210
- Lacustrine sediments, 257–259
- Lacustrine shore modification, 165–172
- Lake: Ice, 165–172; Sedimentary record, 304–313; Water chemistry, 64–68
- Landform selection by arctic fox, 324–328
- Landolt, J. C., Stephenson, S. L., Laursen, G. A., and Densmore, R. (Distribution patterns of cellular slime molds in the Kantishna Hills, Denali National Park and Preserve, Alaska, U.S.A.), 244–248
- Laursen, G. A. *See* Landolt, J. C., et al.
- Lavoie, C. and Payette, S. (Black spruce growth forms as a record of a changing winter environment at treeline, Quebec, Canada), 40–49
- Lichenometry, 50–55
- Limestone weathering, 314–323
- Little Ice Age: Greenland, 249–252; Quebec, 40–49; Yukon, 304–313
- Lockwood, J. A., Schell, S. P., Wangberg, J. K., DeBrey, L. D., DeBrey, W. G., and Bomar, C. R. (Preserved insects and physical condition of Grasshopper Glacier, Carbon County, Montana, U.S.A.), 229–232
- Margasin, R. *See* Schinner, F., et al.
- Marine sediments, 257–259
- Mass balance, 281–290
- Mass wasting, 271–280
- Mating system of *Saxifraga*, 337–343
- Matsuoka, N. and Moriwaki, K. (Frost heave and creep in the Sor Rondane Mountains, Antarctica), 271–280
- McCarthy, D. P. (Dating with cushion plants: establishment of a *Silene acaulis* growth curve in the Canadian Rockies), 50–55
- Medicine Bow Mountains: Soils, 27–39
- Melanoplus*, 229–232
- Meltwater, 153–164
- Molau, U. *See* Stenström, M. and Molau, U.
- Monodon*, 179–187
- Moore, T. R. *See* Koprivnjak, J.-F. and Moore, T. R.
- Moraines, 108–123
- Moriwaki, K. *See* Matsuoka, N. and Moriwaki, K.
- Mountain stream, 195–203
- Narwhal, 179–187
- Negi, G. C. S. *See* Rikhari, H. C., et al.
- Nesje, A. (A piston corer for lacustrine and marine sediments), 257–259
- New Zealand: Mass balance variations, 281–290
- Nitrogen cycle, 291–303
- Nitrogen: Deposition, 211–215; Mineralization, 291–303

- Obleitner, F. *See* Rott, H. and Obleitner, F.
 Osborn, G. *See* Karlstrom, E. T. and Osborn, G.
- Paleoclimatology, 249–252
 Paleoecology: Alaska, 56–63; Greenland, 249–252
 Paleoentomology, 133–144, 229–232
 Paleoenvironment: Alaska, 133–144
 Paleosol: British Columbia, 108–123
 Palsa: Ground-penetrating radar study, 173–178
 Palynology: Alaska, 56–63; Quebec, 329–336
 Pant, G. B. *See* Rikhari, H. C., et al.
 Parkland: Medicine Bow Mountains, 27–39
 Payette, S. *See* Lavoie, C. and Payette, S.
 Peat, 249–252
 Peatland, 178–173, 204–210
 Pedoecology, 216–228
 Pedogenesis: Holocene and late Pleistocene, 108–123
 Periglacial processes: Antarctica, 271–280
 Permafrost, 69–77, 173–178
 Phenology, 337–343
 Phytomass: Alpine plant, 344–351
Picea mariana, 40–49
Pinus aristata, 17–26, 253–256
 Piston corer, 257–259
 Plant reproductive ecology, 337–343
 Pleistocene: Environment, 108–123
 Pollen diagrams: Alaska, 56–63; Quebec, 329–336
Populus tremuloides, 17–26
 Primary productivity, 211–215, 344–351
 Primrose, 82–87
Primula, 82–87
 Proglacial stream, 195–203
 Protease, 88–92
Pseudomonas, 88–92
 Psychrotrophic bacteria, 88–92
 Pümpel, T. *See* Schinner, F., et al.
- Quaternary: Environment, 133–144; Paleoecology, 249–252;
 Pollen records, 56–63
- Radar, ground-penetrating, 173–178
 Ram, J. (Effects of clipping on aboveground plant biomass and
 total herbage yields in a grassland above treeline in central
 Himalaya, India), 78–81
 Rana, B. S. *See* Rikhari, H. C., et al.
 Raynolds, M. K. *See* Felix, N. A., et al.
 Reeves, R. R. (Recent developments in the commerce in narwhal
 ivory from the Canadian arctic), 179–187
 Refugium: Eastern Beringia, 133–144
 Reider, R. G. *See* Doering, W. R. and Reider, R. G.
 Reproductive success of *Saxifraga*, 337–343
 Resilience, 69–77
 Resistance, 69–77
 Revegetation, 238–248
 Rikhari, H. C., Negi, G. C. S., Pant, G. B., Rana, B. S., and
 Singh, S. P. (Phytomass and primary productivity in several
 communities of a central Himalayan alpine meadow, India),
 344–351
 Rock structure, 314–323
 Rocky Mountain bristlecone pine, 253–256
 Rott, H. and Obleitner, F. (The energy balance of dry tundra in
 west Greenland), 352–362
 Russia: Ecological problems, 99–107
- Sacred sites, 9–10
 Sasaki, T. (The development of ice-made ramparts on Lake Kus-
 sharo, Hokkaido, Japan), 165–172
- Saxifraga oppositifolia*, 337–343
 Schell, S. P. *See* Lockwood, J. A., et al.
 Schinner, F., Margesin, R., and Pümpel, T. (Extracellular pro-
 tease-producing psychrotrophic bacteria from high alpine hab-
 itats), 88–92
 Sedimentary environments, 304–313
 Seismic trails, Alaska, 69–77
 Siberia: Ecological problems, 99–107
 Singh, S. P. *See* Rikhari, H. C., et al.
 Slough, B. G. *See* Smith, C. A. S., et al.
 Smith, C. A. S., Smits, C. M. M., and Slough, B. G. (Landform
 selection and soil modifications associated with arctic fox (*A-
 lopex lagopus*) den sites in Yukon, Canada), 324–328
 Smits, C. M. M. *See* Smith, C. A. S., et al.
 Snow: Distribution, 145–152, 216–228; Heat flow, 145–152;
 Nitrogen in, 211–215; Winter conditions in Quebec, 40–49
 Snowmelt: High Arctic, 153–164
 Soil: Alpine, 216–228; Cellular slime molds, 244–248; Fertility,
 233–237; Genesis, 108–123; Medicine Bow Mountains, 27–
 39; Modification in arctic fox dens, 324–328
 Species diversity, 233–237
 Spruce, 40–49
 Stenström, M. and Molau, U. (Reproductive ecology of *Saxi-
 fraga oppositifolia*: phenology, mating system, and reproduc-
 tive success), 337–343
 Stephenson, S. L. *See* Landolt, J. C., et al.
 Stottlemyer, R. (Nitrogen mineralization and streamwater chem-
 istry, Rock Creek Watershed, Denali National Park, Alaska,
 U.S.A.), 291–303
 Stream: Bed load transport, 195–203
 Streamwater chemistry, 291–303
 Sturm, M. (Snow distribution and heat flow in the taiga), 145–
 152
 Subarctic: Fen, 204–210; Palsas, 173–178; Treeline, 40–49
 Succession: Tundra 238–243
- Taiga: Snow distribution, 145–152
 Transhumance, 1–16
 Tree islands, 216–228
 Tree longevity, 253–256
 Tree wells, 145–152
 Treeline: History, 40–49; Quebec, 40–49, 329–336
 Tundra: Disturbance, 69–77; Energy balance, 352–362; Vege-
 tation change, 56–63; Vegetation history, 329–336
 Tyumen Oblast, 99–107
- Vilchek, G. E. and Bykova, O. Yu. (The origin of regional eco-
 logical problems within the northern Tyumen Oblast, Russia),
 99–107
 Vision quest, 9–10
- Wangberg, J. K. *See* Lockwood, J. A., et al.
 Warburton, J. (Observations of bed load transport and channel
 bed changes in a proglacial mountain stream), 195–203
 Warren, C. R. and Glasser, N. F. (Contrasting response of south
 Greenland glaciers to recent climatic change), 124–132
 Weathering: Arctic, 314–323
 Wetlands: High Arctic, 153–164
 Woo, M. and Fitzharris, B. B. (Reconstruction of mass balance
 variations for Franz Josef Glacier, New Zealand, 1913 to 1989),
 281–290
 Wyoming: Soils in Medicine Bow Mountains, 27–39
- Yamaguchi, D. K. *See* Brunstein, F. C. and Yamaguchi, D. K.